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SEP 07 2006

APPLICATION NO.: 10/697,064

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REMARKS

This is a complete and timely response to the non-final Office Action mailed June 15, 2006. Upon entry of the foregoing amendments, claims 1, 4-7 and 15-20 are pending in the application. Claims 2, 3 and 8-14 have been canceled. Claims 1 and 4 have been amended. Claims 15-20 have been added. The subject matter of amended claims 1 and 4 and new claims 15-20 can be found in Applicant's originally filed claims, the originally filed specification in at least FIGs. 4-10 and the related detailed description directed to at least these figures. Consequently, no new matter is added to the present application. In light of the foregoing amendments and following remarks, Applicant requests reconsideration of the application and allowance of the pending claims.

I. Applicant's Election With Traverse

Applicant acknowledges the finality of the election requirement mailed March 24, 2006. Claims 9-14 have been canceled.

However, Applicant notes that the Office Action is not in compliance with the examination procedure detailed in § 821.01 of the Manual of Patent Examining Procedure. In accordance with § 821.01,

Where the initial requirement is traversed, it should be reconsidered. If, upon reconsideration, the examiner is still of the opinion that restriction is proper, it should be repeated and made final in the next Office action. (See MPEP § 803.01.) In doing so, the examiner should reply to the reasons or arguments advanced by applicant in the traverse.

The Office Action does not indicate that the restriction requirement was reconsidered. Furthermore, the Office Action does not reply to the reasons or arguments advanced by the Applicant. Applicant respectfully requests reconsideration of the reasons for traverse and a reply.

II. Applicant's Specification**A. Accuracy**

The Office Action indicates that the "lengthy" specification has not been checked to the extent necessary to determine the presence of all possible minor errors.

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Applicant's 11 page specification has been checked and appears to contain no errors.

B. Abstract

The Office Action does not specifically object to Applicant's abstract. The Office Action reminds the Applicant of the proper language and format for an abstract of the disclosure. Applicant has amended the abstract.

Applicant's abstract, as amended, provides a concise statement of the technical disclosure of the application.

C. Drawings

The Office Action objects to the drawings under 37 CFR 1.83(a). Specifically, the Office Action alleges that no figures show the complete structure of Applicant's claim 1. More specifically, the Office Action questions, "[w]here is the apparatus comprising a first substrate with the optoelectronic device on the first substrate and a matching circuit on the first substrate and coupled to the optoelectronic device?" The Office Action further alleges that the drawings fail to show a first or second substrate. The Office Action indicates that corrected drawing sheets are required to avoid abandonment of the application.

Applicant has amended claim 1 such that the claim no longer recites both a first and a second substrate.

Applicant respectfully submits that originally submitted FIGs. 4 and 9 separately show the combination of a matching circuit and an optoelectronic device on a substrate. Specifically, FIG. 4 shows substrate 403 with matching circuit 405 and optoelectronic device 401. Matching circuit 405 is coupled to optoelectronic device 401. Driver 407 is shown separate from and coupled to substrate 403. Consequently, driver 407 would inherently be formed separate from the substrate. Thus, for at least these reasons, Applicant respectfully submits that the originally submitted drawings show the features of Applicant's amended claim 1. In addition, FIG. 9 shows a substrate 903 with matching circuit 905 and optoelectronic device 901. Matching circuit 905 is coupled to optoelectronic device 901. Amplifier 907 is shown separate from and coupled to substrate 903. Consequently, amplifier 907 would inherently be

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formed separate from the substrate. Thus, for at least these additional reasons, Applicant respectfully submits that the originally submitted drawings show the features of Applicant's amended claim 1.

Accordingly, Applicant requests that the objection to the drawings be withdrawn.

III. Claim Rejections Under 35 U.S.C. § 112

A. Statement of the Rejections

Claims 1-8 stand rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter that applicant regards as the invention. Specifically, the Office Action alleges that the claims are unclear and confusing since the claimed structures are not shown in the drawings.

B. Discussion of the Rejections

Claims 2, 3 and 8 have been canceled. Accordingly, the rejection of claims 2, 3, and 8 is rendered moot.

As discussed above, Applicant's claim 1 has been amended such that it no longer recites first and second substrates. As also shown above, originally submitted FIGs. 4 and 9 include the features recited in Applicant's claim 1. Specifically, FIGs. 4 and 9 illustrate both a first and a second substrate. FIG. 4 shows substrate 403 with matching circuit 405 and optoelectronic device 401. Matching circuit 405 is coupled to optoelectronic device 401. Driver 407 is shown separate from and coupled to substrate 403. FIG. 9 shows a substrate 903 with matching circuit 905 and optoelectronic device 901. Matching circuit 905 is coupled to optoelectronic device 901. Amplifier 907 is shown separate from and coupled to substrate 903. Accordingly, the subject matter of independent claim 1 is shown in the drawings. Applicant further submits that claims 1 and 4-7 are definite and particularly point out and distinctly claim the subject matter that applicant regards as the invention. Accordingly, Applicant respectfully requests that the rejection of claims 1 and 4-7 under 35 U.S.C. § 112, second paragraph, be withdrawn.

IV. Obligation Under 37 CFR 1.56

Applicant acknowledges the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made. The subject matter of claims 1-8 and 15-20 is commonly owned by the assignee of the application. Moreover, Peter Henry Mahowald is the only named inventor.

V. Claim Rejections Under 35 USC § 102 – Claims 1-8**A. Statement of the Rejections**

Claim 1 stands rejected under 35 U.S.C. § 102(e) as allegedly being anticipated by U.S. Patent Application Publication No. 2003/0122628 to Aikawa *et al.* (*Aikawa*).

Claims 1-8 stand rejected under 35 U.S.C. § 102(e) as allegedly being anticipated by U.S. Patent No. 6,583,445 to Reedy *et al.* (*Reedy*).

Claims 1-4 and 6-8 stand rejected under 35 U.S.C. § 102(e) as allegedly being anticipated by U.S. Patent Application Publication No. 2002/0195662 to Eden *et al.* (*Eden*).

B. Discussion of the Rejections

Claims 2, 3 and 8 have been canceled. Accordingly, the duplicative rejections of claims 2, 3 and 8 are rendered moot.

A proper rejection of a claim under 35 U.S.C. § 102 requires that a single prior art reference disclose each element of the claim. *See, e.g., W.L. Gore & Assoc., Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303, 313 (Fed. Cir. 1983). Thus, anticipation requires that each and every element of the claimed invention be disclosed in a single prior art reference. Accordingly, the single prior art reference must properly disclose, teach or suggest each element of the claimed invention.

Applicant's independent claim 1, as amended, includes at least one feature that is not disclosed, taught, or suggested by *Aikawa*, *Reedy* or *Eden*. Accordingly, Applicant respectfully submits that independent claim 1 is allowable over each of *Aikawa*, *Reedy* or *Eden*.

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Specifically, independent claim 1, as amended, is allowable for at least the reason that the claim is directed to an apparatus that comprises "a substrate, an optoelectronic device and a matching circuit formed on the substrate, the optoelectronic device having a frequency response and the matching circuit configured to change the frequency response." *Aikawa*, *Reedy* or *Eden* do not disclose, teach or suggest at least this feature.

The cited portion of *Aikawa*, namely paragraph [0064] states "impedance matching can be readily achieved between Gunn diode 2 and resonator circuit 7 without additionally providing an extra matching circuit or matching line." Thus, *Aikawa* does not disclose, teach or suggest Applicant's claimed apparatus, which recites "a matching circuit formed on the substrate."

The cited portion of *Reedy*, does not disclose, teach or suggest Applicant's claimed apparatus for at least the reason that *Reedy* is entirely silent regarding the arrangement of a matching circuit on a substrate. The only statements regarding matching of any kind found in *Reedy* refer to a thermal match in the thermal coefficient of expansion between Sapphire and GaAs. Applicant's claimed apparatus comprises "a substrate, an optoelectronic device and a matching circuit formed on the substrate, the optoelectronic device having a frequency response and the matching circuit configured to change the frequency response." A match between the thermal coefficient of Sapphire and GaAs, as described in paragraph (52) of *Reedy* does not disclose, teach, or suggest a matching circuit configured to change the frequency response (of an optoelectronic device). Thus, *Reedy* does not disclose, teach or suggest Applicant's claimed apparatus.

Eden does not disclose, teach or suggest Applicant's claimed apparatus for at least the reason that *Eden* is entirely silent regarding "a first substrate, an optoelectronic device and a matching circuit formed on the first substrate, the optoelectronic device having a frequency response and the matching circuit configured to change the frequency response." *Eden* is directed to power semiconductor switching devices, power converters, integrated circuit assemblies, integrated circuitry, power/current switching methods, methods of forming a power semiconductor switching device, power conversion methods, power semiconductor switching device packaging methods, and methods of forming a power transistor. The

statement of the rejection alleges that reference numeral 78 discloses a substrate and that reference numeral 72 is an optoelectronic device formed on the substrate. Applicant respectfully disagrees with this interpretation of *Eden*.

The detailed description of *Eden* fails to disclose an optoelectronic device formed on a substrate as alleged in the statement of the rejection. Reference numeral 78 is described as a drain plane. A drain plane is not a substrate. In addition, reference numeral 72 is not described in the detailed description of *Eden*. Reference numeral 52 (see FIG. 5 of *Eden*), which points to the same structure as reference numeral 72, is described as a semiconductor die that is flip-chip mounted to a high-density pad array 74. A flip-chip mounted semiconductor die on a high-density pad array does not disclose, teach or suggest Applicant's claimed apparatus, which comprises at least "a substrate, an optoelectronic device and a matching circuit formed on the substrate, the optoelectronic device having a frequency response and the matching circuit configured to change the frequency response." Thus, *Eden* does not anticipate claim 1.

Accordingly, for at least the reasons cited above, Applicant's claim 1, as amended, is allowable over each of *Aikawa*, *Reedy* or *Eden*.

Applicant respectfully submits that dependent claims 4-7, which depend directly or indirectly from allowable independent claim 1, are allowable for at least the reason that they depend from an allowable independent claim. *In re Fine*, 837 F.2d 1071, 5 USPQ 2d 1596, 1598 (Fed. Cir. 1998).

Accordingly, Applicant requests that the rejections of claims 1 and 4-7 be withdrawn.

VI. New Claims 15-20

Applicant respectfully submits that new claims 15-20 are allowable for at least the reason that these claims depend or indirectly from allowable independent claim 1. *See In re Fine, supra.*

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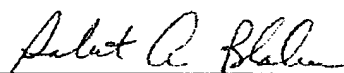
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CONCLUSION

For at least the reasons set forth above, Applicant respectfully submits that pending claims 1, 4-7 and 15-20 are allowable over the cited art of record and the present application is in condition for allowance. Accordingly, a Notice of Allowance is respectfully solicited. Should the Examiner have any comments regarding the Applicant's response, Applicant requests that the Examiner telephone Applicant's undersigned attorney.

Respectfully submitted,

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